

IN THE CLAIMS

The current claims for this application are listed below.

- 1-19. (canceled)
20. (previously presented) A method implemented on a server to serve documents, the method comprising:
receiving, at the server from a remote device, a request for a document, the document including text and one or more links;
transmitting, from the server, a request over a network to have the document delivered to the server and receiving the document, at the server, in response to the request transmitted from the server;
rendering, at the server and for displaying on a screen attached to the remote device, an image from the entire document in response to the request, the image being larger than a screen area on the remote device available for displaying the document; and
sending, from the server to the remote device, the image in a compressed format as a response to the request for the document.
21. (previously presented) The method of claim 20, wherein the document is retrieved from the Internet by the server in response to the request for the document from the remote device.
22. (previously presented) The method of claim 20, further comprising:

receiving, at the server from the remote device, a message to indicate a text input, the text input being received at the remote device relative to a location on a portion of the image displayed in the screen area;
entering, at the server, the text input into the document at a location corresponding to the location on the portion of the image displayed in the screen area to render a refreshed portion of the image; and
sending, from the server to the remote device, the refreshed portion of the image.

23. (previously presented) The method of claim 22, wherein the text input is received at the remote device from a touch screen keyboard; the message includes one or more matrix locations selected on the touch screen keyboard; and, the method further comprises:

determining, at the server, one or more text characters from the one or more matrix locations to enter the text characters into the document.

24. (previously presented) The method of claim 22, further comprising:

receiving, at the server from the remote device, a message to indicate a user selection of the location on the portion of the image displayed on the screen; and
sending, from the server to the remote device, a message to accept keyboard entry in response to a determination that the document accepts text input at the location corresponding to the location on the portion of the image displayed on the screen.

25. (previously presented) The method of claim 24, wherein the message to accept keyboard entry causes the remote device to display a keyboard layout on the remote device.
26. (previously presented) The method of claim 20, wherein the image is in a plurality of sections rendered from the document; a first one of the plurality of sections is compressed in a first format; and, a second one of the plurality of sections is compressed in a second format.
27. (previously presented) The method of claim 26, wherein the first format is lossless; and, the second format is lossy.
28. (previously presented) The method of claim 27, wherein the first one of the plurality of sections is rendered from a text portion of the document; and, the second one of the plurality of sections is rendered from a graphics portion of the document.
29. (previously presented) The method of claim 26, wherein the first one of the plurality of sections and the second one of the plurality of sections have different color depths.
30. (previously presented) The method of claim 20, wherein the image rendered from the document comprises:
a first layer in a reduced color depth; and
one or more graphics portions with fine details to be overlaid over the first layer.

31. (previously presented) The method of claim 30, wherein the first layer is monochrome.
32. (previously presented) A method implemented on a portable device to access remote documents, the method comprising:
- sending, from the device to a remote server, a request for a document, the document having vector information including text the request causing the remote server to transmit a further request over a network to have the document delivered to the remote server so that the remote server can render the image;
- receiving, at the device, an image in a compressed format from the remote server, the image being rendered at the remote server from the entire document in response to the request;
- storing the image in the compressed format on the device; and
- according to a user input to the device, selectively displaying only a portion of the image on a screen attached to the device according to the image stored on the device.
33. (previously presented) The method of claim 32, wherein the image comprises a plurality of sections; a first section of the plurality of sections that is not displayed on the device remains compressed on the device while one or more sections of the plurality of sections corresponding to the portion of the image displayed on the device are decompressed.

34. (previously presented) The method of claim 32, wherein said selectively displaying the portion of the image comprises:
scrolling the image on the screen at exclusive control of the device.
35. (previously presented) The method of claim 32, further comprising:
receiving, at the device, a text input relative to a location on a portion of the image displayed on the screen;
sending, from the device to the remote server, a message to indicate that the text input is to be entered into the document;
receiving, at the device from the remote server, a refreshed portion of the image, the refreshed portion of the image being rendered at the remote server after entering the text input into the document at a location corresponding to the location on the portion the image displayed on the screen; and
displaying the refreshed portion of the image on the screen.
36. (previously presented) The method of claim 35, wherein the text input comprises a string of text characters; and, the message is sent from the device to the remote server in response to receiving, at the device, a command to send.
37. (previously presented) The method of claim 36, wherein the text input is received at the device through one or more selections on a keyboard layout displayed on the screen; and, the command to send causes the keyboard layout not being displayed on the screen.

38. (previously presented) The method of claim 35, wherein the text input is a single text character; and, the message is sent from the device to the remote server in response to receiving, at the device, the single text character.
39. (previously presented) The method of claim 35, wherein the text input is received at the device from a touch screen keyboard; the message includes one or more matrix locations selected on the touch screen keyboard; and, the remote server determines one or more text characters from the one or more matrix locations to enter the text characters into the document.
40. (previously presented) The method of claim 35, further comprising:
receiving, at the device, a user selection of the location on the portion of the image displayed on the screen;
transmitting, from the device to the remote server, a message to indicate the user selection;
receiving, at the device from the remote server, a message to accept keyboard entry when the remote server determines that the document accepts text input at the location corresponding to the location on the portion of the image displayed on the screen; and
displaying a keyboard layout on the screen in response to the message to accept keyboard entry.
41. (previously presented) The method of claim 32, further comprising:
receiving text inputs at the device;

storing text characters in a text file on the device according to the text inputs;
retrieving the text characters from the text file; and
sending, from the device to the remote server, a message to enter the text characters
into the document on the remote server at a location corresponding to a
location on a portion of the image displayed on the screen.

42. (previously presented) The method of claim 41, wherein the text inputs are received while the device is not in communication with the remote server.
43. (previously presented) The method of claim 41, wherein the text inputs comprise an electronic mail message; and, the document comprises a web page for sending the electronic mail message.
44. (previously presented) The method of claim 32, further comprising:
retrieving at least a portion of an image of a previously requested document from a
memory of the device, the image of the previously requested document being
previously received from the remote server and stored in the memory of the
device in a compressed format; and
displaying at least the portion of the image of the previously requested document.
45. (previously presented) The method of claim 32, wherein the image rendered from the document is received at the device in a plurality of sections; a first one of the plurality of sections is compressed in a first format; and, a second one of the plurality of sections is compressed in a second format.

46. (previously presented) The method of claim 45, wherein the first format is lossless; and, the second format is lossy.
47. (previously presented) The method of claim 46, wherein the first one of the plurality of sections is rendered from a text portion of the document; and, the second one of the plurality of sections is rendered from a graphics portion of the document.
48. (previously presented) The method of claim 45, wherein the first one of the plurality of sections and the second one of the plurality of sections have different color depths.
49. (previously presented) The method of claim 48, wherein the device decompresses sections of the image for display on the screen in a priority according to color depth.
50. (previously presented) The method of claim 32, wherein the image rendered from the document comprises:
a first layer in a reduced color depth; and
one or more graphics portions with fine details to be overlaid over the first layer;
wherein the first layer is decompressed for display on the screen before the graphics portions are decompressed.
51. (previously presented) The method of claim 50, wherein the first layer is monochrome.
52. (previously presented) The method of claim 32, further comprising:

displaying a plurality of icons with at least a portion of the image on the screen; and responsive to receiving a selection of one of the plurality of icons, transmitting from the device to the remote server a message to execute a command with respect to the document at the remote server.

53. (previously presented) The method of claim 52, further comprising:
determining at the device one or more commands from the selection;
wherein the message comprises the one or more commands.
54. (previously presented) The method of claim 52, wherein the message comprises information about the selection; and, the remote server determines the command from the information about the selection.
55. (previously presented) A machine readable medium containing executable computer program instructions which when executed by a data processing system cause said system to perform a method implemented on a server to serve documents, the method comprising:
transmitting, from the server, a request over a network to have the document delivered to the server and receiving the document, at the server, in response to the request transmitted from the server;
receiving, at the server from a remote device, a request for a document, the document including text and one or more links;
rendering, at the server and for displaying on a screen attached to the remote device, an image from the entire document in response to the request, the image being

larger than a screen area on the remote device available for displaying the document; and
sending, from the server to the remote device, the image in a compressed format as a response to the request for the document.

56. (previously presented) The medium of claim 55, further comprising:
receiving, at the server from the remote device, a message to indicate a text input, the text input being received at the remote device relative to a location on a portion of the image displayed in the screen area;
entering, at the server, the text input into the document at a location corresponding to the location on the portion of the image displayed in the screen area to render a refreshed portion of the image; and
sending, from the server to the remote device, the refreshed portion of the image.
57. (previously presented) The medium of claim 56, further comprising:
receiving, at the server from the remote device, a message to indicate a user selection of the location on the portion of the image displayed on the screen; and
sending, from the server to the remote device, a message to accept keyboard entry in response to a determination that the document accepts text input at the location corresponding to the location on the portion of the image displayed on the screen.
58. (previously presented) The medium of claim 55, wherein the image is in a plurality of sections rendered from the document; a first one of the plurality of sections is

compressed in a first format; and, a second one of the plurality of sections is compressed in a second format.

59. (previously presented) The medium of claim 58, wherein the first format uses a lossless technique; and, the second format uses a lossy technique.
60. (previously presented) The medium of claim 58, wherein the first one of the plurality of sections and the second one of the plurality of sections have different color depths.
61. (previously presented) The medium of claim 55, wherein the image rendered from the document comprises:
a first layer in a reduced color depth; and
one or more graphics portions with fine details to be overlaid over the first layer.
62. (previously presented) A machine readable medium containing executable computer program instructions which when executed by a data processing system cause said system to perform a method implemented on a portable device to access remote documents, the method comprising:
sending, from the device to a remote server, a request for a document, the document having vector information including text the request causing the remote server to transmit a further request over a network to have the document delivered to the remote server so that the remote server can render the image;
receiving, at the device, an image in a compressed format from the remote server, the image being rendered at the remote server from the entire document in response to the request;

storing the image in the compressed format on the device; and
according to a user input to the device, selectively displaying only a portion of the
image on a screen attached to the device according to the image stored on the
device.

63. (previously presented) The medium of claim 62, wherein the image comprises a plurality of sections; a first section of the plurality of sections that is not displayed on the device remains compressed on the device while one or more sections of the plurality of sections corresponding to the portion of the image displayed on the device are decompressed.
64. (previously presented) The medium of claim 62, wherein said selectively displaying the portion of the image comprises:
scrolling the image on the screen at exclusive control of the device.
65. (previously presented) The medium of claim 62, further comprising:
receiving, at the device, a text input relative to a location on a portion of the image displayed on the screen;
sending, from the device to the remote server, a message to indicate that the text input is to be entered into the document;
receiving, at the device from the remote server, a refreshed portion of the image, the refreshed portion of the image being rendered at the remote server after entering the text input into the document at a location corresponding to the location on the portion the image displayed on the screen; and
displaying the refreshed portion of the image on the screen.

66. (previously presented) The medium of claim 65, further comprising:
receiving, at the device, a user selection of the location on the portion of the image
displayed on the screen;
transmitting, from the device to the remote server, a message to indicate the user
selection;
receiving, at the device from the remote server, a message to accept keyboard entry
when the remote server determines that the document accepts text input at the
location corresponding to the location on the portion of the image displayed
on the screen; and
displaying a keyboard layout on the screen in response to the message to accept
keyboard entry.
67. (previously presented) The medium of claim 62, further comprising:
receiving text inputs at the device;
storing text characters in a text file on the device according to the text inputs;
retrieving the text characters from the text file; and
sending, from the device to the remote server, a message to enter the text characters
into the document on the remote server at a location corresponding to a
location on a portion of the image displayed on the screen.
68. (previously presented) The medium of claim 62, further comprising:
retrieving at least a portion of an image of a previously requested document from a
memory of the device, the image of the previously requested document being

previously received from the remote server and stored in the memory of the device in a compressed format; and
displaying at least the portion of the image of the previously requested document.

69. (previously presented) The medium of claim 62, wherein the image rendered from the document is received at the device in a plurality of sections; a first one of the plurality of sections is compressed in a first format; and, a second one of the plurality of sections is compressed in a second format.
70. (previously presented) The medium of claim 69, wherein the first format uses a lossless technique; and, the second format uses a lossy technique.
71. (previously presented) The medium of claim 70, wherein the first one of the plurality of sections is rendered from a text portion of the document; and, the second one of the plurality of sections is rendered from a graphics portion of the document.
72. (previously presented) The medium of claim 69, wherein the first one of the plurality of sections and the second one of the plurality of sections have different color depths.
73. (previously presented) The medium of claim 72, wherein the device decompresses sections of the image for display on the screen in a priority according to color depth.
74. (previously presented) The medium of claim 62, wherein the image rendered from the document comprises:
a first layer in a reduced color depth; and

one or more graphics portions with fine details to be overlaid over the first layer;
wherein the first layer is decompressed for display on the screen before the graphics
portions are decompressed.

75. (previously presented) The medium of claim 62, further comprising:
displaying a plurality of icons with at least a portion of the image on the screen; and
responsive to receiving a selection of one of the plurality of icons, transmitting from
the device to the remote server a message to execute a command with respect
to the document at the remote server.
76. (previously presented) A server to serve documents, the server comprising:
means for receiving, at the server from a remote device, a request for a document, the
document including text and one or more links;
transmitting, from the server, a request over a network to have the document delivered
to the server and receiving the document, at the server, in response to the
request transmitted from the server;
means for rendering, at the server and for displaying on a screen attached to the
remote device, an image from the entire document in response to the request,
the image being larger than a screen area on the remote device available for
displaying the document; and
means for sending, from the server to the remote device, the image in a compressed
format as a response to the request for the document.
77. (previously presented) The server of claim 76, further comprising:

means for receiving, at the server from the remote device, a message to indicate a text input, the text input being received at the remote device relative to a location on a portion of the image displayed in the screen area;

means for entering, at the server, the text input into the document at a location corresponding to the location on the portion of the image displayed in the screen area to render a refreshed portion of the image; and

means for sending, from the server to the remote device, the refreshed portion of the image.

78. (previously presented) The server of claim 77, further comprising:

means for receiving, at the server from the remote device, a message to indicate a user selection of the location on the portion of the image displayed on the screen;

and

means for sending, from the server to the remote device, a message to accept keyboard entry in response to a determination that the document accepts text input at the location corresponding to the location on the portion of the image displayed on the screen.

79. (previously presented) The server of claim 76, wherein the image is in a plurality of sections rendered from the document; a first one of the plurality of sections is compressed in a first format; and, a second one of the plurality of sections is compressed in a second format.

80. (previously presented) The server of claim 79, wherein the first format is lossless; and, the second format is lossy.

81. (previously presented) The server of claim 79, wherein the first one of the plurality of sections and the second one of the plurality of sections have different color depths.
82. (previously presented) The server of claim 76, wherein the image rendered from the document comprises:
a first layer in a reduced color depth; and
one or more graphics portions with fine details to be overlaid over the first layer.
83. (previously presented) A portable device to access remote documents, the device comprising:
means for sending, from the device to a remote server, a request for a document, the document having vector information including text the request causing the remote server to transmit a further request over a network to have the document delivered to the remote server so that the remote server can render the image;
means for receiving, at the device, an image in a compressed format from the remote server, the image being rendered at the remote server from the entire document in response to the request;
means for storing the image in the compressed format on the device; and
means for, according to a user input to the device, selectively displaying only a portion of the image on a screen attached to the device according to the image stored on the device.

84. (previously presented) The device of claim 83, wherein the image comprises a plurality of sections; a first section of the plurality of sections that is not displayed on the device remains compressed on the device while one or more sections of the plurality of sections corresponding to the portion of the image displayed on the device are decompressed.
85. (previously presented) The device of claim 83, wherein said means for selectively displaying the portion of the image comprises:
means for, scrolling the image on the screen at exclusive control of the device.
86. (previously presented) The device of claim 83, further comprising:
means for receiving, at the device, a text input relative to a location on a portion of the image displayed on the screen;
means for sending, from the device to the remote server, a message to indicate that the text input is to be entered into the document;
means for receiving, at the device from the remote server, a refreshed portion of the image, the refreshed portion of the image being rendered at the remote server after entering the text input into the document at a location corresponding to the location on the portion the image displayed on the screen; and
means for displaying the refreshed portion of the image on the screen.
87. (previously presented) The device of claim 86, further comprising:
means for receiving, at the device, a user selection of the location on the portion of the image displayed on the screen;

means for transmitting, from the device to the remote server, a message to indicate the user selection;

means for receiving, at the device from the remote server, a message to accept keyboard entry when the remote server determines that the document accepts text input at the location corresponding to the location on the portion of the image displayed on the screen; and

means for displaying a keyboard layout on the screen in response to the message to accept keyboard entry.

88. (previously presented) The device of claim 83, further comprising:

means for receiving text inputs at the device;

means for storing text characters in a text file on the device according to the text inputs;

means for retrieving the text characters from the text file; and

means for sending, from the device to the remote server, a message to enter the text characters into the document on the remote server at a location corresponding to a location on a portion of the image displayed on the screen.

89. (previously presented) The device of claim 83, further comprising:

means for retrieving at least a portion of an image of a previously requested document from a memory of the device, the image of the previously requested document being previously received from the remote server and stored in the memory of the device in a compressed format; and

means for displaying at least the portion of the image of the previously requested document.

90. (previously presented) The device of claim 83, wherein the image rendered from the document is received at the device in a plurality of sections; a first one of the plurality of sections is compressed in a first format; and, a second one of the plurality of sections is compressed in a second format.
91. (previously presented) The device of claim 90, wherein the first format is lossless; and, the second format is lossy.
92. (previously presented) The device of claim 91, wherein the first one of the plurality of sections is rendered from a text portion of the document; and, the second one of the plurality of sections is rendered from a graphics portion of the document.
93. (previously presented) The device of claim 90, wherein the first one of the plurality of sections and the second one of the plurality of sections have different color depths.
94. (previously presented) The device of claim 93, wherein the device decompresses sections of the image for display on the screen in a priority according to color depth.
95. (previously presented) The device of claim 83, wherein the image rendered from the document comprises:
a first layer in a reduced color depth; and
one or more graphics portions with fine details to be overlaid over the first layer;
wherein the first layer is decompressed for display on the screen before the graphics portions are decompressed.

96. (previously presented) The device of claim 83, further comprising:
means for displaying a plurality of icons with at least a portion of the image on the
screen; and
means for, responsive to receiving a selection of one of the plurality of icons,
transmitting from the device to the remote server a message to execute a
command with respect to the document at the remote server.
97. (previously presented) A method as in claim 20 wherein the rendering at the server
renders display pixels to be displayed at the remote device such that the remote device
does not render display pixels.
98. (previously presented) A medium as in claim 55 wherein the rendering at the server
renders display pixels to be displayed at the remote device such that the remote device
does not render display pixels.
99. (previously presented) A method as in claim 32 wherein the remote server renders
display pixels to be displayed at the device such that the device does not render
display pixels.
100. (previously presented) A medium as in claim 62 wherein the remote server
renders display pixels to be displayed at the device such that the device does not
render display pixels.